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ABSTRACT

This report summarizes the findings of the Louisiana School Effectiveness study, designed to identify school level attitudes and behaviors which predict students' achievement. Principals, teachers, and students in 76 schools with third grade classrooms responded to school climate questionnaires. Data for the students also included scores on the Louisiana Basic Skills Tests, scores on the Educational Development series test, and student socioeconomic (SES) characteristics. Data analyses were divided into two distinct efforts: (1) an input-output model designed to predict student achievement from student SES and school climate, and (2) a description of six different types of schools (three levels of effectiveness x two levels of SES). Factor analysis followed by regression analysis indicated that there were four significant contributors to the variance in test scores: student SES, student perceptions of how much the teachers and other students care about grades, students' future educational expectations, and student perceptions of negative school climate. Recommendations for school improvement included school level recommendations, local system level recommendations, and state level recommendations. (BW)

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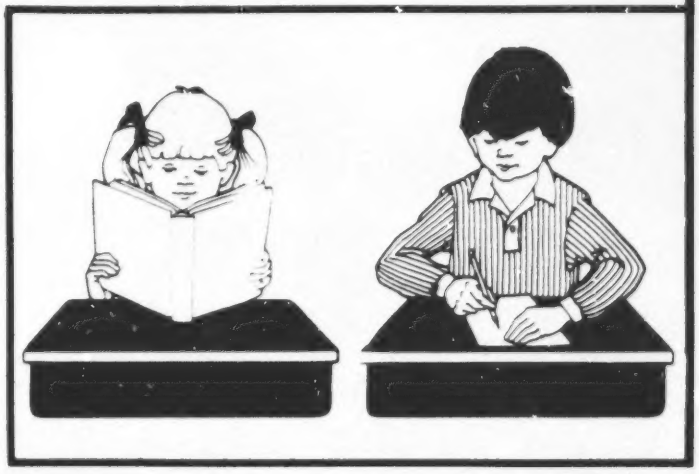
# THE LOUISIANA
# SCHOOL EFFECTIVENESS STUDY

## Executive Summary and Conclusions

**Louisiana State Department of Education**



**Phase Two**
**1982-84**

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# LOUISIANA SCHOOL EFFECTIVENESS STUDY:

# PHASE TWO

# 1982-84

## EXECUTIVE SUMMARY AND CONCLUSIONS

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## EXECUTIVE SUMMARY AND CONCLUSIONS

### I. Introduction

This report summarizes the findings of Phase Two of the Louisiana School Effectiveness Study (LSES). The results can be summarized very simply: schools make a large difference in student achievement in Louisiana beyond the effect of the socioeconomic characteristics of students in those schools. Results further indicate that some schools are performing well beyond expectations. Other schools are less productive. If the citizens of Louisiana are to enjoy the productivity and prosperity that is within their potential, many public schools are going to have to increase substantially their effectiveness in educating young people.

The first goal of the LSES is to identify school level attitudes and behaviors which predict students' achievement. A longer-term goal of the study is to find ways to help local schools and school systems alter their professional staffs' attitudes and behaviors in ways which both increase their professional staffs' job satisfaction and increase students' achievement. This report documents the progress that the LSES has made toward the first goal, identifying stable school level predictors of student achievement.

### II. Design

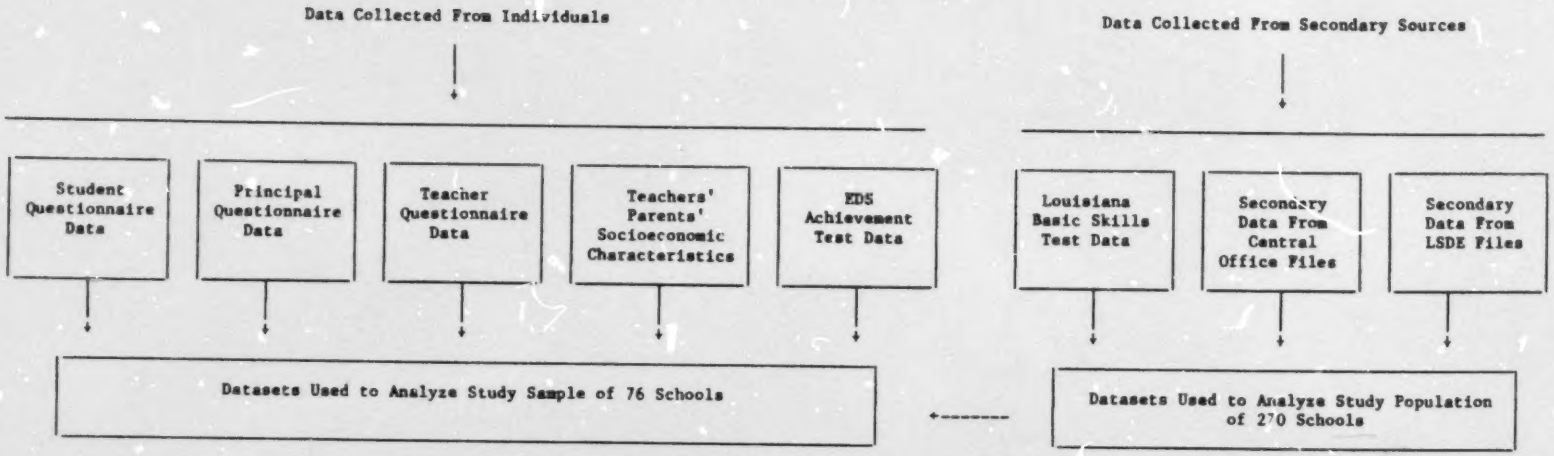
Seventy-six schools with third grade classrooms were involved in Phase Two of the LSES. These 76 schools were selected using a stratified random sample design to be representative of the schools in the 12 districts in which they were located (Bayless, 1983). The schools were visited between January and March 1983.

Altogether, school climate questionnaires were administered to 74 principals, more than 250 teachers, and some 5,400 third grade students. Data for the students also included (1) scores on the Louisiana Basic Skills Tests (BST), (2) scores on the Educational Development Series (EDS), lower primary level test, and (3) student socioeconomic characteristics (SES) gathered from the BST. Figure 1 summarizes all datasets used in the LSES Phase Two.

Data analyses were divided into two distinct efforts: (1) an input-output model designed to predict student achievement from student SES and school educational climate, and (2) a description of six different types of effective and ineffective schools. Case studies were conducted in four schools. These four studies will provide information to be used in the design for Phase Three of the LSES.

Figure 1

Summary of Datasets Used in LSES Phase Two


Data Collected From Individuals
Data Collected From Secondary Sources
Student Questionnaire Data
Principal Questionnaire Data
Teacher Questionnaire Data
Teachers' Parents' Socioeconomic Characteristics
EDS Achievement Test Data
Louisiana Basic Skills Test Data
Secondary Data From Central Office Files
Secondary Data From LSDE Files
Datasets Used to Analyze Study Sample of 76 Schools
Datasets Used to Analyze Study Population of 270 Schools

## III. Results

This section summarizes the major results from this report.

### A. Factor and Regression Analyses

The researchers collected data from a number of sources, including questionnaires administered to principals, teachers, and students. This resulted in a very large number of variables to be considered. In order to reduce these data into manageable dimensions, a number of factor analyses were conducted. Figure 2 summarizes the datasets used in the factor and regression analyses.

Students' parents' socioeconomic status (SES), school composition variables, and variables from each of the questionnaires were subjected to separate factor analyses. From the data on students' SES and school composition, two factors emerged which were significantly related to student achievement as measured by the EDS. These were students' SES and percentage of student body and teachers who are white.

From the data on the students' questionnaires, 10 factors emerged. Four of these (students' future educational expectations, students' perception of negative school climate, students' perceptions of teachers' work and push, and students' perception of how much the teachers and other students care about grades) were shown to be significantly related to achievement scores.

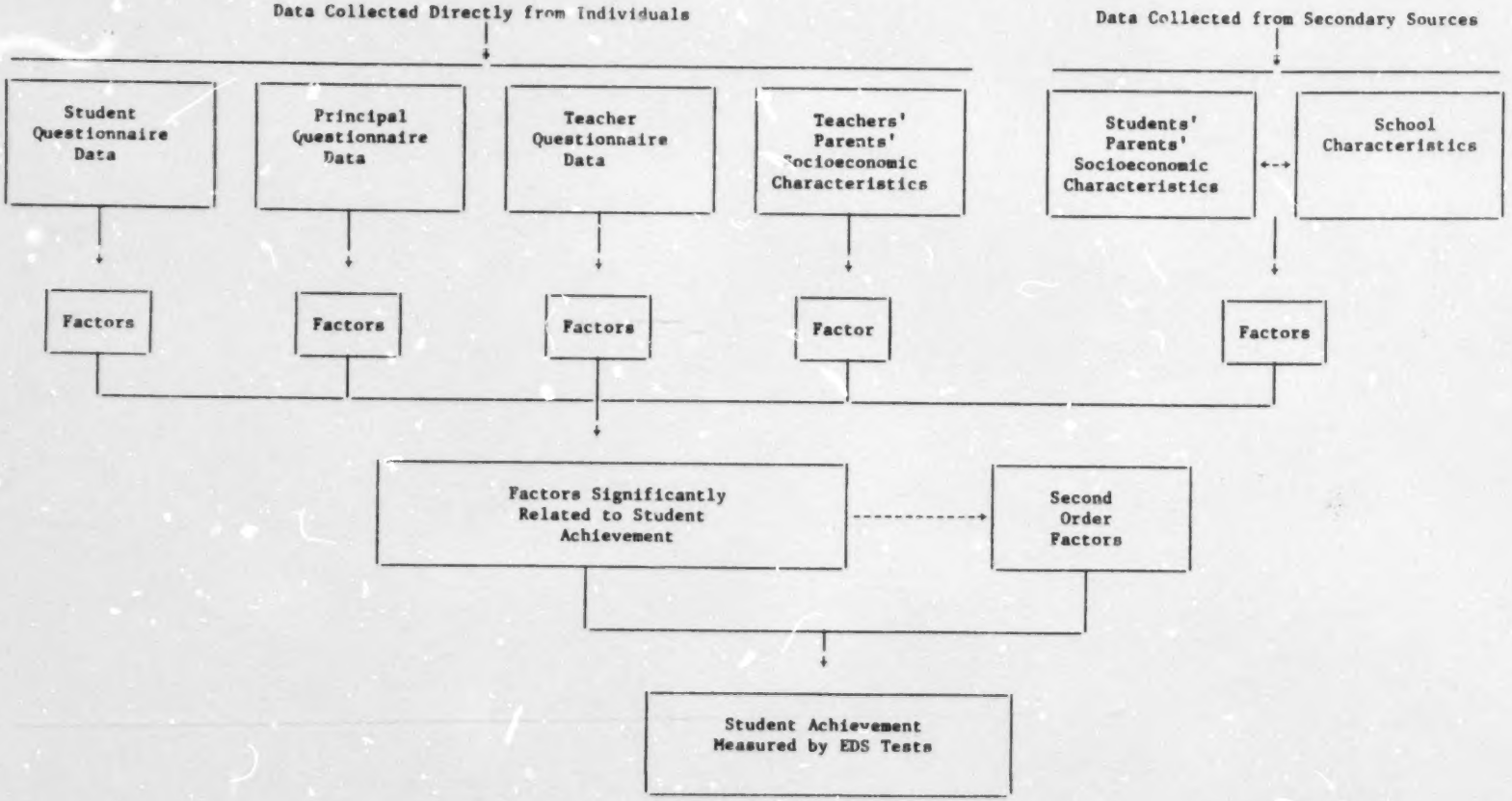
Analysis of the teachers' instruments yielded 21 different factors. Of the first 10 factors, two proved to be strongly related to student achievement. These were the teachers' expectations that their students would attend college and the teachers' perceptions of their students' academic ability.

The data from the principals' questionnaires were reduced to 17 factors. Of the 10 strongest, four were significantly correlated with student achievement scores. The four were principals' future expectations for the students, the principals' perceptions of the schools' success and students' academic abilities, how much the principal works with his/her teachers, and the principals' perceptions of parental support for education.

Therefore, 12 factors from these data bases were significantly correlated with student achievement. These factors were then put into a regression analysis to determine their relative strengths. This analysis indicated that there were four significant contributors to the variance in test scores (students' SES, students' perceptions of how much the teachers and other students care about grades, students' future educational expectations, and students' perception of negative

Figure 2

Datasets Used in Factor and Regression Analysis



school climate). None of the factors from the teachers' or principals' questionnaires were significant contributors. These 12 factors explained 74 percent of the variance in student achievement scores. Understanding these, then, is very important in understanding school effectiveness.

Consideration of the 12 factors described above added a great deal to an understanding of what makes a school effective in Louisiana. To further clarify the data analysis, factor analysis was used again. This time the 12 factors were simplified into four summary factors (called second-order factors).

The first of these is Students' SES. Included in this factor are students' SES, teachers' and principals' expectations for their students' academic performance, and students' perceptions of the amount that their teachers push them academically. The nature of the relationships was that students from high SES homes had principals and teachers who expected substantial future educational achievement from them. Students from low SES homes were more likely to report that their teachers pushed them to succeed.

The next important factor is Current Academic Climate. In this factor are the amount that the principals are involved in academics in the school, the teachers' ratings of their students' ability, the students' assessment of the negativeness of the school climate, and the racial composition of the faculty and the student body. The most important aspect of this factor is that the students who say that the school learning environment is positive (who say that students are not teased for good performance and students are not afraid to work up to their potential) are the students whose teachers rate their students' ability as high.

Student Expectations/Parental Support is the third of these major factors. The important contributors here are the childrens' expectations for the amount of education they will eventually attain and the principals' assessment of the degree of parental support for education.

The last of these second-order factors is School Caring and Success. This factor is composed of the students' perception that the teachers and the students care about grades and the principals' belief that the school is successful. It is likely that the principals' belief filters down to the teachers and students and that the faculty and students' emphasis on performance influences the principal's judgment.

The final analysis in Chapter Five explores the relationship between these four major factors and student achievement. These four factors account for 67 percent of the variance in students' scores. The most important factor is School Caring and Success. Each of these four factors accounted for at

least 11 percent of the variance in student achievement and each contributes something unique to our understanding of school effectiveness.

B. Analyses of Variance

A series of analyses were run in which the 76 schools were divided into the following six different groups:

Socioeconomic Characteristics of Students' Parents

| | | High SES | Low SES |
|---|---|---|---|
| School's Performance Relative to Expectation | Effective | | |
| | Typical | | |
| | Ineffective | | |

Analyses of variance enabled the investigators to look at the following comparisons: (1) differences between effective, typical, and ineffective schools; (2) differences between high and low SES schools; and (3) differences among the six groups of schools.

These analyses enabled the investigators to construct the following descriptions of the six groups of schools:

(1) High SES, effective schools

(a) Teachers were in frequent contact with parents and perceived parents as being highly concerned with quality education.

(b) Teachers reported having high present and future academic expectations for their students.

(c) Teachers accepted responsibility for students' outcomes and actively worked with students toward the realization of these high expectations. This attitude was reflected in students' reports noting that teachers cared about them and pushed them to achieve academically.

(d) These schools had the highest percentage of teachers teaching third grade exclusively.

(e) The students apparently internalized the high expectations expressed by teachers and parents. Students in high achieving, affluent schools had higher expectations for themselves than did their peers in equally affluent schools with lower achievement. The general climate from the effective, affluent schools was one of concern for excellence from all the major participants--principals, faculty, students and parents.

(2) High SES, typical schools

(a) Compared with teachers in the high SES, effective schools, the teachers in high SES, typical schools took less responsibility for the academic achievement of their students.

(b) Compared with students in the high SES, effective schools, students perceived lower expectations from their teachers and parents; students also perceived less teacher push.

(3) High SES, ineffective schools

(a) Teachers had unrealistically high perceptions of their students' current level of academic achievement; they appeared to base their perceptions on intrinsic student characteristics such as student SES.

(b) Students' future academic expectations are not as high as those of other high SES students.

(c) The principals' academic expectations were lower than those of the teachers.

(d) Principals in this group are less likely to blame their faculty for student underachievement than principals from other high SES schools.

Principals' actions did not appear to affect changes in these schools. Combining teachers who believe that high achievement generates itself spontaneously with relatively unmotivated students results in underachievement.

(4) Low SES, effective schools

(a) While the principals and teachers had modest long-term expectations for their students' achievement, particularly in regard to higher education, they held firm academic expectations for their students while at their school.

(b) Teachers reported spending more time on reading and math and assigning more homework than either of the other two low SES groups.

(c) Students perceived teachers as pushing them academically. They also reported receiving more help from their teachers than did students in less successful, low SES schools.

(d) Students perceived their teachers as having high expectations for them in their current classrooms.

(e) Teachers reported that principals visited their classrooms frequently.

(f) The teachers in this group were the youngest and least experienced of the low SES groups.

(g) The teachers in this group were the most likely of all the teachers to have teacher's aides.

These less affluent, successful schools had principals who motivated teachers who, in turn, motivated students. The ability to instill in students a belief that they can learn is critical in low SES schools.

(5) Low SES, typical schools

(a) Teachers in this group perceived themselves as having greater influence on student attitudes and held higher future academic expectations for their students compared with other low SES groups.

(b) Parents were viewed by teachers as being more concerned and having higher expectations than other low SES groups.

(c) Students viewed their teachers and parents as having positive perceptions of their school work; students were viewed by teachers as having high expectations for themselves; students viewed their teachers as being less demanding academically and less critical than students did in the low SES, effective schools.

It appears that these positive perceptions, high expectations, and teacher praise coupled with the idea that teaching efforts are of the right kind and amount resulted in a lesser focus on student achievement.

(6) Low SES, ineffective schools

(a) An overall negative academic climate in these schools appears to have contributed to the low achievement of students. Of all the groups, teachers had the lowest expectations for students in their schools and rated them the lowest academically; the teachers accepted little responsibility for and perceived having little influence on student outcomes; they also appeared less satisfied with teaching and perceived themselves as unsuccessful in helping students attain goals. It should be remembered that students in this group are at the same SES level as students in the two previous groups.

(b) Principals rated their students low on achievement.

(c) When compared with students in other low SES groups, students perceived their teachers as less praising, less caring, less helpful, and more critical. Of the six groups, these students reported that their teachers felt learning was the least important.

(d) Principals estimated that their teachers had their students spend the least time in reading of all six groups of schools.

(e) Principals, teachers, and pupils all perceived the lack of achievement within the schools.

## IV. Recommendations

As Murphy and Hallinger (1984) recently pointed out, policy analysis at the school district and school level is becoming increasingly important. Research findings about effective schools is one area of current interest to local districts and schools. The LSES provides policy recommendations and research that it is hoped will be of benefit to Louisiana schools and school districts.

The research team feels strongly that, taken as a group, the recommendations based on the LSES Phase Two results can provide a framework for improvement in many schools. The value to a particular school of any one recommendation will obviously vary depending on the current performance level of the students and staff pertaining to suggested activities. The research team visited some schools that impressed them as being extremely well administered and highly effective. Yet, invariably, the principal expressed the belief that his/her school could improve in some area. The hope is that this report will serve as a catalyst for some changes but it is recommended that effective programs already being implemented not be affected.

Recommendations based on the data from Phase Two of the LSES are presented on three levels: the school, the local system, and the state.

### A. School Level Recommendations

Recommendation 1: Principals and teachers should convey a clear academic mission to students and parents.

Rationale: Schools that obtained the lowest student achievement provided a mixed message on goals (e.g. "Achievement is most important....and so is student self-concept and social development and....) Everything can't be most important. Taxpayer polls consistently

indicate that parents want schools to teach the academics.

In the Second Phase of the LSES, schools in which students thought teachers cared a lot about grades achieved more than those who did not, regardless of SES.

**Recommendation 2:** Principals and teachers should actively elicit parental support and involvement.

Rationale: In this study, regardless of parents' SES, schools that elicited more active parental support and involvement achieved more. Unfortunately many of the schools in Louisiana need to broaden their relationships substantially with their community. Perhaps specialists in this field should be employed by some school systems to ensure better community/school relations.

**Recommendation 3:** Principals and teachers should hold high, but realistic expectations for students' achievement.

Rationale: In the LSES, particularly in less affluent schools, students of teachers who held high, specific, and reasonable expectations (ex. "You can learn the material in our third grade texts") achieved higher than was predicted.

**Recommendation 4:** Principals and teachers should allot and use substantial blocks of uninterrupted time for the teaching of reading and math.

Rationale: In this and many other studies, uninterrupted time spent by teachers in interactive teaching of reading and math predicted student achievement. Teachers in the low SES, effective schools reported spending more class time on reading and mathematics than either of the other two low SES groups.

**Recommendation 5:** Schools, with more or less affluent student bodies, need to use somewhat differing strategies to increase student achievement.

Rationale: One of the major findings of the study was that effective schools whose students were from relatively underprivi-

leged backgrounds were substantially different from effective schools in middle class contexts.

Effective, low SES schools had: (1) young and relatively inexperienced teachers; (2) a large percentage of teacher's aides in the classrooms; (3) principals who had a large voice in the hiring of their teachers; (4) principals who were frequently in the classroom; (5) teachers who held firm academic expectations for their students while at their schools; and (6) teachers who spent much time on reading and math and assigned a great deal of homework.

On the other hand, effective, high SES schools had principals, faculty, students, and parents who expected and experienced excellence in academics. The teachers in these schools had frequent contact with parents and accepted much responsibility for their students' outcomes. Principals were less likely to make visits to classrooms than those principals in the effective, low SES schools. Striving for excellence was apparently fostered at home and reinforced at school for the students in this group.

Recommendation 6: Teachers and principals need to be made aware of the variables they can control in their schools to effect student achievement.

Rationale: Teachers' and, to a lesser extent, principals' perceptions of the successfulness of their school were more strongly tied to the socioeconomic status of students' parents than to their own actions. Yet this research team found many nonaffluent schools whose students were achieving more than many of their more affluent peers. Economic background of students matters, but in this study it proved to be a less powerful predictor of student achievement than a schools' climate of caring about academics and success.

It is simply incorrect to believe that SES by itself produces achievement. School climate is as important a predictor of achievement, and it is something the

faculty creates. Further education of teachers must occur on this point, or mediocrity and failure in school will continue for many of the less affluent children. This further education could occur through a well-orchestrated series of workshops, college courses, and other learning experiences aimed at changing teachers' attitudes and perceptions.

B. Local System Level Recommendations

Recommendation 7: Principals should have substantial voice in the hiring of teachers in their schools.

Rationale: Principals in schools achieving more than predicted tended to have greater voice in the hiring of teachers. In fact, 23 percent of the principals in the effective, low SES schools make their own hiring decisions. Local school systems should give their principals a vote in the selection of teachers. Principals should receive training in recruitment and other management tasks. The Administrator's Leadership Academy, currently proposed in Louisiana, might provide the type of training required to enable principals to select the kind of teachers who would be the most successful at their school.

Recommendation 8: Local school systems should develop modern Management Information Systems (MIS).

Rationale: If local administrators are to make decisions that are at least partially data-based, they must have ready access to multifaceted, integrated data bases. School systems were quite generous in their provisions of data to the LSES researchers, but often local employees had a great deal of difficulty providing rudimentary data to the team within a reasonable time frame. With a fully integrated MIS, an administration could provide its board, its Parish Government, the State Department of Education, and its own staff, accurate, specific data on one day's notice. Superintendents are under ever-increasing demands for information. Computerized, integrated MISs can help them meet the demands of their difficult jobs. There is no doubt that an efficient

MIS helps many businesses run more effectively; it is time that our local school systems provide this same capability for our schools.

Recommendation 9: Local systems should continue their progress toward total racial integration of faculties and student bodies.

Rationale: Louisiana has come remarkably far in the last two decades in integrating its faculties and student bodies and should continue its efforts in this direction. Nationwide, school segregation has fallen markedly since 1968, but 33 percent of black students still attended virtually all-black schools in 1980. Our data indicate that only 23 percent of the total population of black students in Louisiana still attend virtually all-black schools. These virtually all-black schools constitute only 11 percent of the total number of schools in Louisiana. The researchers believe that the melting pot philosophy that has characterized American education, and indeed American democracy, will produce more effective schools.

C. State Level Recommendations

Recommendation 10: Many voices in the education community are speaking on alternative methods for spending education dollars. School effectiveness research, such as the LSES, can provide evidence for more appropriate ways of spending these state funds. Schools should be rewarded for the following: (a) increases in Average Daily Attendance, (b) student achievement beyond expectation based on student SES, and (c) increases in parental/community involvement.

Rationale: The LSES data indicated that Average Daily Attendance (ADA) predicted achievement independent of SES. Children who aren't in school cannot be expected to learn. Therefore, some system for rewarding schools in which ADA increases should be instituted.

Documented achievement above expectation should be rewarded. Wilbur Brookover has

stated (AERA annual meeting in New Orleans, 1984) that rewarding schools for excellence is as important as rewarding teachers for excellence. One of the basic premises of school effectiveness research is that each school has a particular educational climate that fosters or does not foster learning. The LSES data confirm this premise. The effective schools should be rewarded.

The rationale for rewarding schools with increases in parental/community involvement can be found in Recommendation 2 above.

**Recommendation 11:** More teacher's aides should be employed, especially at the early elementary levels and in schools in which the students come from low SES backgrounds.

Rationale: The effective, low SES schools had more teacher's aides than any of the other groups of schools. Having teacher's aides in the early grades in low SES schools appears to make these schools more effective in educating their students.

**Recommendation 12:** Local school systems, schools, principals, and faculties should be provided information on student achievement (Louisiana Basic Skills Tests and State Assessment Tests) at the school level, accompanied by a range of predicted scores for the school based on student SES. This will enable the systems, schools, and faculties to know if they have an effective school on this criterion.

Rationale: In the LSES teachers and principals in effective, low SES schools didn't report any understanding of how well they were doing. In fact, many seemed discouraged. The ranges of predicted scores accompanied by actual scores would provide documentation of these faculty members' success.

**Recommendation 13:** The State Department of Education, in conjunction with local systems, should institute an Effective School Recognition Program.

Rationale: The state gathers a lot of achievement and other data on schools which, in conjunction with local input, could be used to celebrate excellence in Louisiana public education. Credit ought to be given where credit is long overdue.

Recommendation 14: The LDE should encourage teachers to participate in workshops and in-service training concerning effective school climate. The LDE should develop materials for these workshops.

Rationale: One of the strongest findings of the LSES is that school climate has a great effect on student achievement that is independent of the students' socioeconomic background. Important aspects of this school climate include the expectations that teachers hold for their students, and the amount of emphasis placed on academics in the school. Teachers should have the opportunity to explore these and learn ways to apply the ideas in their classrooms.

## III. The LSES Plan for Future Action

This report is the culmination of LSES Phase Two. Reports on LSES Phase One are also available from the Bureau of Research [ Falk (1983); Falkowski, Teddlie, Falk, Desselle (1983); Louisiana State Department of Education (1982); Teddlie, Falkowski, and Falk (1983); Teddlie, Falk, and Falkowski (1984)]. The study has evolved from a single parish exploratory effort to a major school effectiveness study which is drawing favorable national attention to Louisiana. Begun originally as an in-house project, the study is now receiving funding from outside of the State.

During the 1984-85 school year, the LSES researchers will examine in greater detail the day-to-day workings of a relatively small number of schools in an effort to build a more detailed, more qualitative model of the actions necessary to create and maintain schools in which students achieve exceptionally.

Beginning in the 1985-86 school year, the research team intends to assist a small number of local schools in building a base for sustained school improvement. Assuming the success of that endeavor, the State Department will, for the first time, be able to provide Louisiana school systems with a locally validated, research-based program for systematic school improvement.

The ultimate goal of the LSES is to institute a comprehensive school improvement program in Louisiana, following the lead of

similar programs in California, Colorado, Connecticut, Delaware, Florida, Maryland, Missouri, and Pennsylvania. In discussing these school improvement programs, Mitchell and Encarnation (1984) concluded that there are three overlapping educational policy goals--efficiency, equity, and quality--which are noted in Figure 3. The LSES program currently focuses on school effectiveness, which is primarily concerned with the efficiency and quality of schooling.

Table 1 summarizes LSES past, present, and future activities.

Figure 3

Three Overlapping Educational Policy Goals

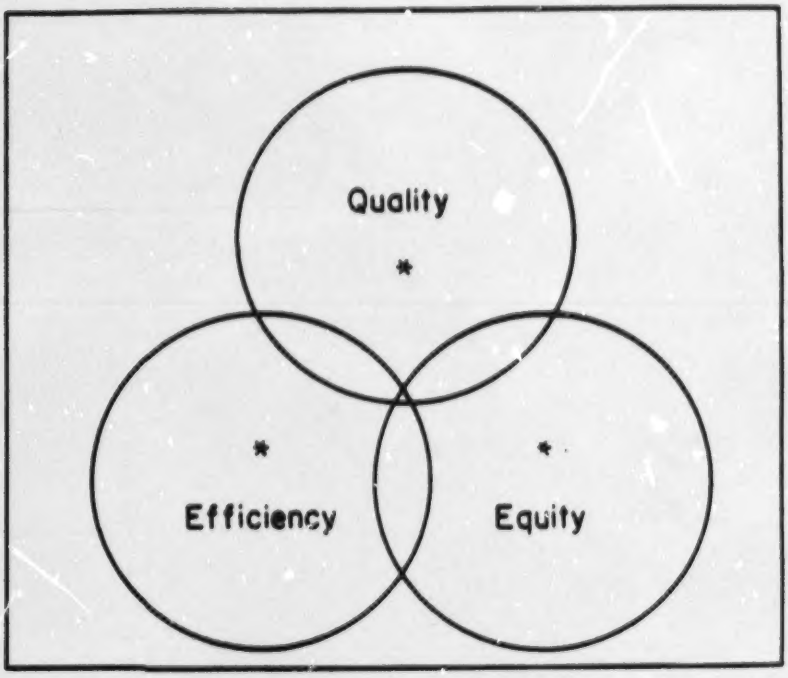


Table 1

LSES Past, Present, and Future Activities

| Phase | Brief Description | Period |
|---|---|---|
| Phase One | Conceptualization of Project<br>Overall design<br>Initiation of project<br>Pilot Study<br>Field tested instrument<br>Phase One Report prepared | 1980-82 |
| Phase Two | Selected sample of 76 schools<br>Administered school climate questionnaires to 74 principals, 250 teachers, 5,400 students<br>Analyzed data<br>Phase Two Report completed June 1984 | 1982-84 |
| Phase Three | Compare 8 to 10 matched pairs of schools<br>Derive policy implications for what makes an effective school in Louisiana | 1984-85 |
| Phase Four | Change 3 or 4 ineffective schools | 1985-86 |
| Future Phases | One strategy would be to institute an Effective Schools Recognition Program<br>Another strategy would be to conduct workshops and in-service training statewide concerning effective school climate<br>The ultimate goal would be the institution of a comprehensive school improvement program in Louisiana | 1987 → |

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